Work Order ID 119334

Thursday, May 15, 2014 3:37:10 PM

119334

Item ID: D4634-5 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Aft, Center Ceiling Panel

Start Date: 6/10/14 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 6/10/14 **Req'd Qty:** 1.00 *1* **Customer:**

Reference:

Approvals: **Process Plan:** ML5 **Date:** 14-05-16 **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr: D4634 / Revision Nbr: F									
100		0.00							DAS 07 9-89
100	HAND FINISHING THERMOFORMING					x1			14/06/17
Thermoform	**Memo**	0.00							
Thermoforming Machine	Cut Blanks								
105		0.00							DAS 07 9-89
105	Dry Material					x1			14/06/17
HandThermo	**Memo**	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								

Temp: 245 deg. F

Time IN: 6:00 AM

Time OUT: 5:00 PM

JUN 17 2014

Per..

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Work Order ID 119334

Thursday, May 15, 2014 3:37:10 PM

1193334

Item ID: D4634-5 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Aft, Center Ceiling Panel

Start Date: 6/10/14 **Start Qty:** 1.00 *1*

Required Date: 6/10/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							DAS 07 9-89
110	THERMOFORMING MACHINE					X1			
Thermoform	**Memo**	0.00							
Thermoforming Machine	Thermoform as per Dwg. D4634-5 and Folio FTA146								14/06/17
	Dwg. Rev. F								
	Folio Rev. E								
	Visually inspect for proper formation and texture								
130		0.00							
130	HAND FINISHING THERMOFORMING					X1			14/07/04
Thermoform	**Memo**	0.00							
Thermoforming Machine	Trim to Finished Dimensions								
140	QC6- Inspect dimensions to drawing	0.00							
140	Dimensional Inspection					(1)	SAD	14/07/07	
QC	**Memo**	0.00							
Quality Control	Fill out Inspection Sheet Rev A								

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

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- ☐ Broken/Damage/Defect
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drawing
- ☐ Drill Holes
- ☐ Finish
- ☐ Fit/Function
- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Item ID: D4634-5 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Aft, Center Ceiling Panel
Start Date: 6/10/14 **Start Qty:** 1.00 *1*
Required Date: 6/10/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00				1			
150		14/07/027 DAS							
QC	**Memo**	0.00							
Quality Control									
160	Packaging	0.00							
160						1 SAS 14/07/07			
Packaging	**Memo** Section MK	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170						MLJ 14-07-08			
QC	**Memo**	0.00							
Quality Control									

14-7-8

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
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- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
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Process	☐									
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Training	☐									
Transport	☐									
Unapproved	☐									

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- ☐ Marks/Chatter
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- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
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- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Picklist Print

Thursday, May 15, 2014 3:37:13 PM

Work Order ID: 119334 *1193334*

Parent Item: D4634-5 *D4634-5*

Parent Item Name: Aft, Center Ceiling Panel

Start Date: 6/10/14 **Required Date:** 6/10/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B Dwg. Update 13/07/09 DL verf:DD IPP Rev C Dwg. Update, Material Change 13/12/18 DL IPP Rev. D 14/01/20 Dwg Update DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,289.443	17.33	18			DAS 07 9-89
MLEXS.093-F6006-07									**				

GE PLASTICS LEXAN SHEET (Grey)

Location	Loc Qty	Loc Code
MAT023	1289.44332	
114459	229.26	
123105	38	
124501	543.5	
m128668	201.35	
m129014	277.33332	

129471

18 sq ft

14/06/17

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

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Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

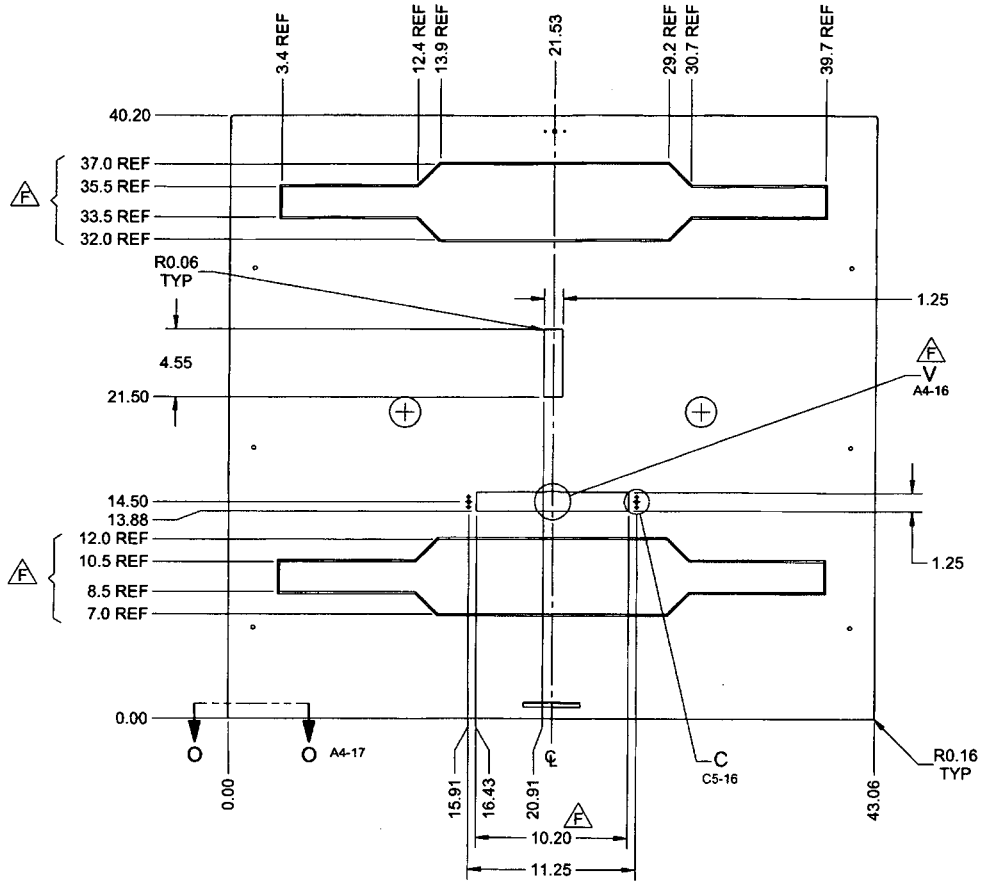
FAULT CATEGORY

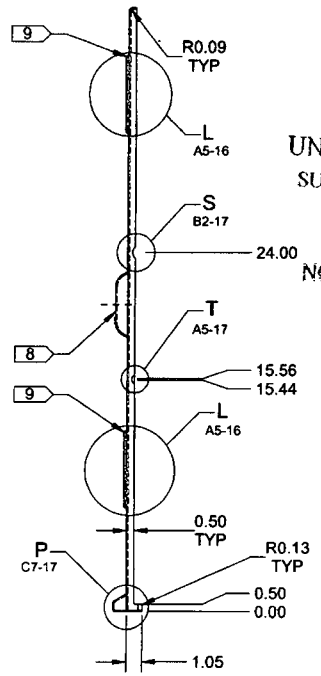
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☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other





SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 11.9334_MCJ
14-05-20

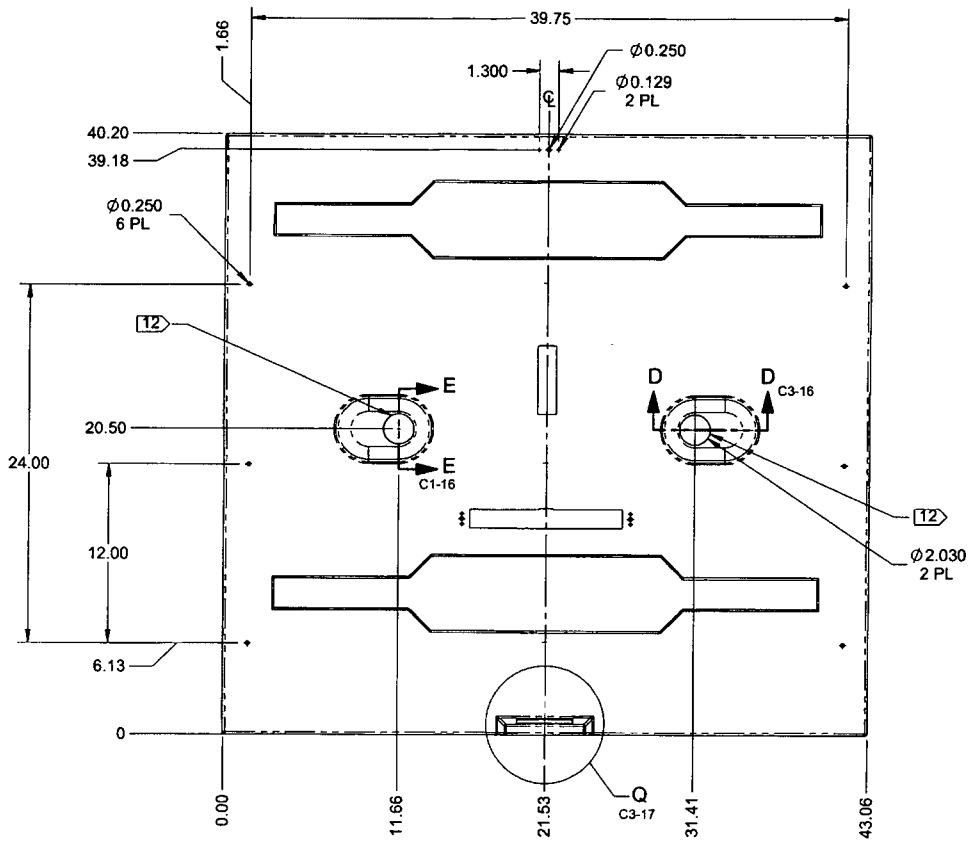
NOTES:
1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 7.39 lbs
8) TEXTURE ON THIS SIDE
9) 0.14 RADIUS NOT SHOWN FOR CLARITY
10) DRILL & TRIM D4634-5 PER TOOL DT9838
11) THERMOFORM PER QSI 022 USING DT9846 TOOL
MIN. THICKNESS AFTER FORMING:
EDGES = 0.060
ELSEWHERE = 0.070
12) LOCATE Ø2.030 AT CENTER OF PROTRUDED SURFACE AS SHOWN

D4634-5 AFT, CENTER CEILING PANEL

RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	BC	DRAWING NO. D4634 REV. F
MFG. APPR.		SHEET 14 OF 17
APPROVED		TITLE CENTER CEILING PANELS SCALE NTS
DE APPR.		
DATE	14.02.03	

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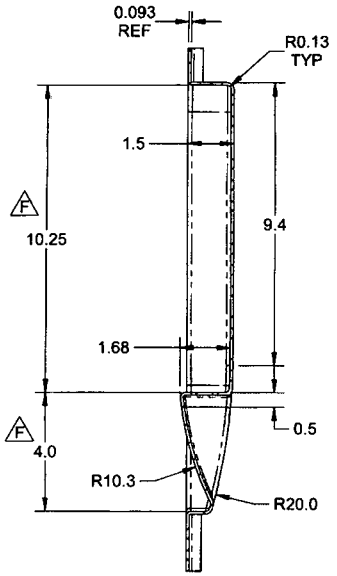


D4634-5 AFT, CENTER CEILING PANEL
AUXILIARY VIEW

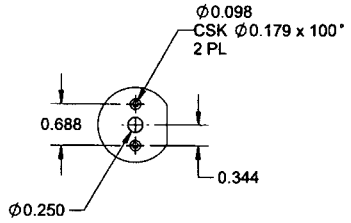
RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DC	DRAWING NO.	REV. F
MFG. APPR.		D4634	SHEET 15 OF 17
APPROVED		TITLE	SCALE
DE APPR.		CENTER CEILING PANELS	NTS
DATE	14.02.03		

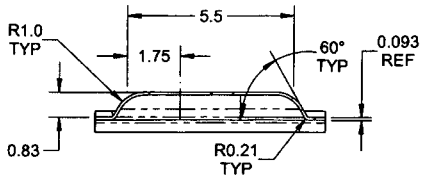
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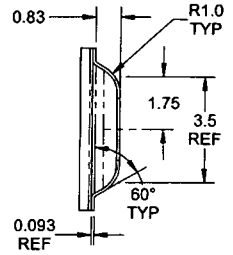
SECTION G-G C5-11
SCALE 4X



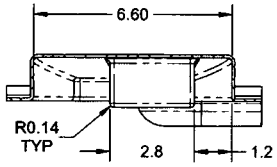
DETAIL C B7-10 B4-12 B4-14
SCALE 4X



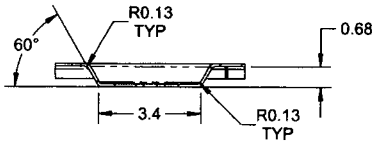
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SCALE 2X



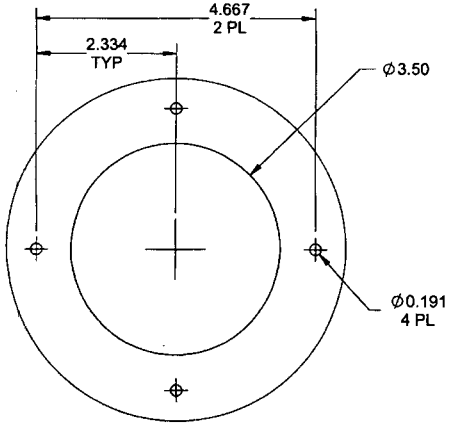
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SCALE 4X



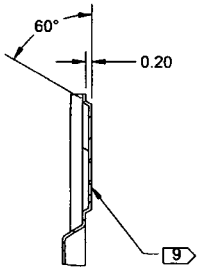
SECTION H-H C5-11
SCALE 2X



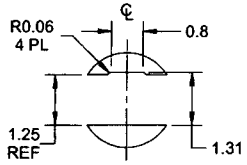
SECTION J-J B6-13
SCALE 2X



DETAIL B B7-10
SCALE 4X
2 PL



DETAIL L B2-13 C2-13 B2-14 C2-14
SCALE 4X
TYP

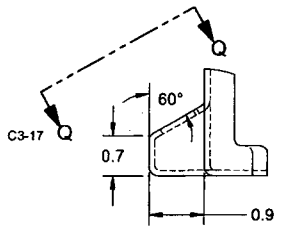


DETAIL V C4-10 B4-12 C4-14
SCALE 2X
SIMILAR

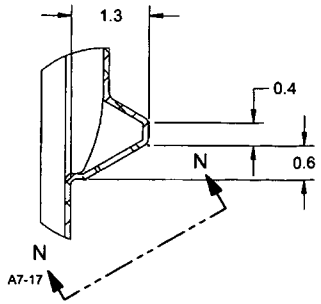
RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. D4634 REV. F
CHECKED		SHEET 16 OF 17
MFG. APPR.		TITLE CENTER CEILING PANELS SCALE NTS
APPROVED		
DE APPR.		
DATE	14.02.03	

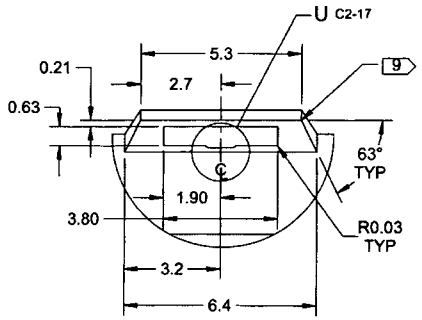
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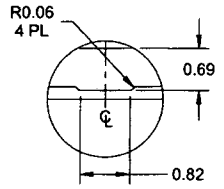
DETAIL P B3-14
SCALE 2X



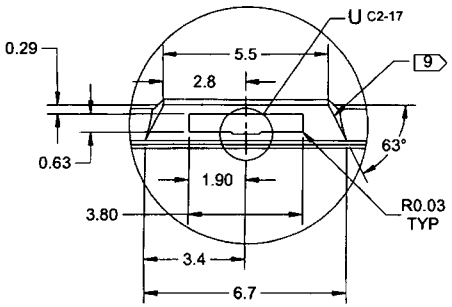
DETAIL M C3-10
SCALE 2X



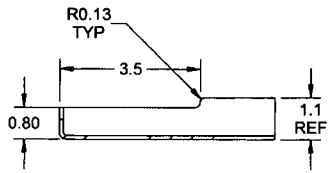
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SCALE 0.5X



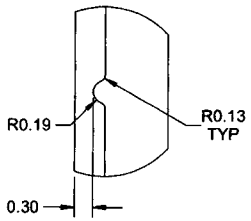
DETAIL U B7-17 D3-17
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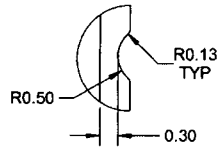
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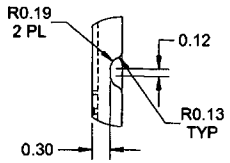
SECTION O-O B6-14
SCALE 1.3X



DETAIL R B3-10 C3-10 B2-12
SCALE 4X



DETAIL S B3-10 C2-12
SCALE 4X



DETAIL T C2-14
SCALE 4X

RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. REV. F
CHECKED		D4634 SHEET 17 OF 17
MFG. APPR.		TITLE SCALE
APPROVED		CENTER CEILING PANELS NTS
DE APPR.		
DATE	14.02.03	

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DART AEROSPACE LTD

Description: Aft Center Ceiling Panel		**Work Order:** 119334
Inspection Drawing: 4634-5	Rev: F	Part Number: D4634-5

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
10.20	±0.030	10.20	✓		M-T	SEAB-21
11.25	±0.030	11.25	✓		"	"
15.91	±0.030	15.91	✓		"	"
1.25	±0.030	1.25	✓		Vern	SEAB-08
4.55	±0.030	4.55	✓		"	"
21.50	±0.030	21.50	✓		M-T	SEAB-21
13.88	±0.030	13.88	✓		"	"
1.25	±0.030	1.25	✓		Vern	SEAB-08
21.53	±0.030	21.53	✓		M-T	SEAB-21
12.00	±0.030	12.00	✓		"	"
24.00	±0.030	24.00	✓		"	"
20.50	±0.030	20.50	✓		"	"
Ø 0.250	+0.005 -0.001	Ø 0.250	✓		Vern	SEAB-08
39.75	±0.030	39.75	✓		M-T	SEAB-21
1.300	±0.010	1.300	✓		Vern	SEAB-08
Ø 0.129	+0.005 -0.001	Ø 0.129	✓		"	"
Ø 0.250	+0.005 -0.001	Ø 0.250	✓		"	"
11.66	±0.030	11.66	✓		M-T	SEAB-21
31.41	±0.030	31.41	✓		"	"
Ø 2.030	+0.012 -0.001	Ø 2.030	✓		Vern	SEAB-08
3.80	±0.030	3.80	✓		"	"
0.63	±0.030	0.63	✓		"	"

Measured by: SAD Date 14/07/07	**Checked By:** DAS 27 9-89 Date 14/07/07	**QC inspector:** DAS 27 9-89 Date 14/7/7	**Engineering Approval** *(if necessary)*: Date